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Motor vehicle body comprising a support structure made of large-size partial modules

The invention relates to a motor vehicle body of the type specified in the precharacterizing clause of patent claim 1.

A motor vehicle body of this type is already described in DE 37 20 344 A1 and comprises a support structure made of large-size partial modules. A roof module of the support structure is placed via front and rear roof columns onto a basic module level with the side wall edge, the front and rear roof columns being connected to one another via a respectively assigned cross member. In this case, the rear roof columns are connected to one another via a rear parcel shelf which is stiffened by the assigned cross member.

A body of this type which comprises a support structure made of large-size partial modules is already known from EP 0 250 678 B1. One of the partial modules is a roof module which is placed with front and rear roof columns onto a basic module approximately level with the side wall edge of the body. In this case, the front and rear roof columns are connected to one another via a respectively assigned cross member in order to stiffen the roof module.

The object of the invention is the provision of a body comprising a support structure #2 which is embodied in a very stiff manner in the region in which chassis forces are introduced by the rear axle.

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This object is achieved according to the invention by the features of the main claim.

Advantageous refinements of the invention can be gathered from the remaining claims.

In the case of the support structure of the body according to the invention, the rear roof columns are connected to one another via a supporting plate of a rear parcel shelf, as a result of which, first of all, an improved stiffening of the rear roof columns of the roof module or of the entire assembled support structure arises. In this case, the at least one cross member is integrated into the supporting plate, as a result of which an overall extremely stiff bond is created at the rear end of the roof module. The arrangement of the supporting plate on the roof module makes it possible, with the basic module structure arranged below it, to omit transversely stiffening elements at the upper end thereof. In other words, those wall regions of the rear side walls of the basic module which adjoin the rear roof columns do not need to be connected at their upper ends - for example via a cross member - with the result that a clearance is provided between said wall regions. As a result, the basic module is suitable, for example, for use for an open motor vehicle, in which the clearance between said wall regions is required for a folding top compartment.

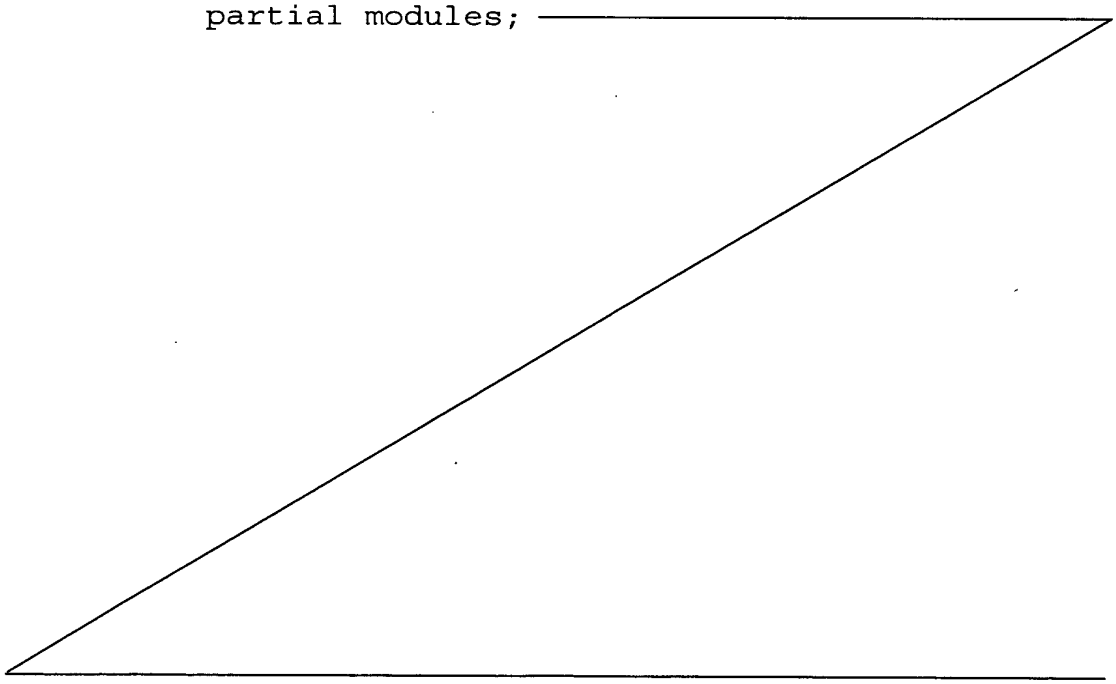
The support arrangement, which extends in the transverse direction of the vehicle and is closed by the supporting plate of the roof module to form a supporting frame, makes it possible for the rear region

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of the support structure, into which chassis forces are introduced by the rear axle, to be embodied in a very stiff manner. In this case, the chassis forces can be introduced particularly readily into the supporting frame or the support structure, since supports are provided which run in the vertical direction of the vehicle, are connected to one another via a cross member level with a vehicle floor and are arranged on the inside of rear wheel houses.

Further advantages, features and details of the invention emerge from the description below of a preferred exemplary embodiment and with reference to the drawings, in which

Fig. 1 shows a perspective exploded illustration of the support structure of the motor vehicle body according to the invention, which support structures is made of large-size partial modules;



Patent claims

1. A motor vehicle body, comprising a support structure (10) made of large-size partial modules (12, 22, 34, 44), a roof module (34) having front and rear roof columns (36, 42) being placed onto a basic module (2, 12) approximately level with the side wall edge of the body, the front and rear roof columns (36, 42) of the roof module (34) being connected to one another via a respectively assigned cross member (57; 62, 64), and the rear roof columns (42) being connected to one another via a supporting plate (60) of a rear parcel shelf which is stiffened by the associated cross member (62, 64) characterized in that the basic module (12) comprises a support arrangement (66) which extends in the transverse direction of the vehicle and is closed by the supporting plate (60) of the roof module (34) to form a supporting frame, the support arrangement (66) having supports (68, 70) which run in the vertical direction of the vehicle and are connected to each other via a cross member (54) extending level with a vehicle floor (14).

2. The body as claimed in claim 1, characterized in that the supporting plate (60) is bounded at the front and rear ends by a respective cross member (62, 64).

3. The body as claimed in claim 1, characterized in that the supports (68, 70) of the support arrangement (66), which supports run in the vertical direction of the vehicle, are arranged on the inside of rear wheel houses (20).

4. The body as claimed in claim 1, characterized in that the supports (68, 70) running in the vertical

direction of the vehicle are connected directly to the front cross member (62) of the supporting plate (60).

5. The body as claimed in claim 1, characterized in that the supporting plate (60) are arranged at the lower end (59) of the roof columns (42) between upper side wall sections of the roof module (34).

6. The body as claimed in claim 1, characterized in that the roof module (34) ends along a vertical separating plane directly behind the supporting plate (60), with a rear module (44) adjoining the roof module (34).